

NATIONAL ACADEMY OF SCIENCES  
NATIONAL RESEARCH COUNCIL

*Steinbock*

DIVISION OF BIOLOGY AND AGRICULTURE

June 8, 1959

Dr. Joshua Lederberg  
Professor of Genetics  
University of Wisconsin  
Madison 6, Wisconsin

Dear Josh:

A month or so ago the Governing Board of the Academy-Council approved the establishment of a Committee on Extra-Terrestrial Life. The words upon which the discussion was based are as follows:

1. What general parameters can one isolate by which life can be characterized?
2. Would our usual concepts apply to other than a carbon-based form of life?
- 3, What critical minimum of information content is necessary for continuity and what information storage devices can be visualized for generalized life forms?
4. What can be gleaned from our knowledge of the biophysical and biochemical progress of evolution on this planet that will be useful in considering extra-terrestrial life?

We noted that the Committee on Bio-Astronautics would certainly be interested in this area and indeed Calvin is now Chairman of a sub-committee of that group. However, it was also felt that it might be well to have a completely uncommitted group meeting together now and then to consider as deeply as possible some of the scientific aspects of the probability of life on other planets and in general, act as an advanced thinking group.

I know of your general interest in these matters and have also heard via the grapevine that there have been some discussions already on both coasts. This letter is to ask your opinion about the whole matter. Specifically, 1 - is it desirable for the Academy-Council to have a separate Biology Committee on Extra-Terrestrial Life, even though the Armed Forces Committee on Bio-Astronautics will have a somewhat similar group and, 2 - if so, suggest names to be included in the group to be drawn together for preliminary discussion.

My own feeling is that in an intellectual, adventurous area such as this, there is need for the exchange of ideas and information without reference to any particular application, military, agricultural, public health, or

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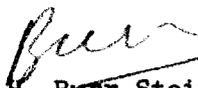
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otherwise, although those aspects certainly cannot be avoided. I think that in the future there may be quite a bit of loose thinking, as indeed there already has been and an Academy-Council Committee might help keep things on an even keel.

When you have time, I would appreciate hearing from you. I will be at Woods Hole all summer but letters addressed to me either to Chicago or Washington would be forwarded. What would be best, of course, would be if you could drop in for a visit at Woods Hole.

Best personal regards,



H. Burr Steinbach

HBS/MGH